METHOD FOR MULTIPLE ANTENNA TRANSMISSION

Abstract of the Disclosure

There is disclosed a duplex communication system having multiple antennae at the forward link transmitter. One method of transmitting a stream of information symbols from the antennae is by beamforming. With beamforming the transmitter typically operates in closed loop and uses channel information from the receiver to change beams in the forward link. Another approach employs orthogonal coding. Orthogonal coding can be simpler to implement because it can operate in an open loop system that is without channel knowledge at the transmitter. Each has its advantages and disadvantages. What is here disclosed is a method which is an alternative to using only beamforming or orthogonal coding. The signals transmitted from at least two antennae are by beamforming or othogonal coding; or by beamforming in combination with orthogonal coding in a proportion that is determined by a reference value which is related to the differences between the signals from the antennae. The reference value can be related to the amplitude or phase of the signals and it can be either measured or estimated.